

REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion is respectfully requested.

Claims 1-3, 6-8, 11, 13, 15-17, 20-22, 25, 27, 29 and 30 are pending in this application. Claims 1, 3, 6-8, 11, 13, 15, 17, 20-22, 25, 27 and 19 are amended; Claim 30 is added; and Claims 18 and 23 are canceled without prejudice or disclaimer by the present amendment. Support for the new and amended claims can be found in the original specification, claims and drawings.¹ No new matter is presented.

In the Office Action, Claims 1-3, 6-8, 11, 13, 15-18, 20-23, 25, 27 and 29 were rejected under 35 U.S.C. §103(a) as unpatentable over Wang et al ("Policy-Enabled Handoffs Across Heterogeneous Wireless Networks", published at WMCSA 1999, herein Wang) in view of Hsu (U.S. Pat. 6,363,319).

In response to the rejection based on Wang and Hsu, Applicants respectfully submit that amended independent Claims 1, 6, 11, 15, 20, 25 and 29, and new Claim 30, recite novel features clearly not taught or rendered obvious by the applied references.

New independent Claim 30, for example, recites, in part, a link manager comprising:

...a processor configured to define a plurality of link metrics, ***each link metric being defined by a plurality of characteristics*** of each detected link;
an interface configured to receive an input to rank said respective link metrics and receive an input to ***rank each of said plurality of characteristics defining each of said respective link metrics***; and
a processor configured to select a link by analyzing each link based on each individual stored metric in order of rank, and select a link corresponding to a record having ***a characteristic with a highest rank thus assigned, at a link metric with a highest rank***.

¹ E.g., support for amended independent Claims 1, 6, 11, 15, 20, 25 and 19 can be found at least at Figs. 4, 7 and 8 and their corresponding description in the specification. New Claim 30 recites features similar to amended Claim 1, but is drafted to avoid interpretation under 35 U.S.C. § 112, sixth paragraph.

Independent Claims 1, 6, 11, 15, 20, 25 and 29, while directed to alternative embodiments, recite similar features. Accordingly, the arguments presented below are applicable to each of independent Claims 1, 6, 11, 15, 20, 25, 29 and 30.

As described in an exemplary embodiment at p. 16, l. 19-p. 18, l. 10 and Fig. 7 of the specification, the link manager 1 sorts all the records in the link management table shown in Fig. 6, using the link metric with the highest priority in Fig. 4 as a key. Specifically, noting the link metric with the highest priority, it is set as $n=1$ (step ST1) and all the records are selected (step ST2). Here ranks indicating preference levels are assigned to the plurality of characteristics corresponding to the respective link metrics. Fig. 8 is a diagram showing the priority ranks of the plurality of characteristics corresponding to each of the respective link metrics. For example, as to the data corresponding to the link metric "cost," "free" is provided with the highest priority and "time-based" with the lowest priority. The records selected at step ST2 are sorted based on these priorities assigned to the data (step ST3). Then it is determined whether the number of records having the data with the highest priority is equal to one (step ST4). If the number is one, the link identified by the top record is selected (step ST5).

Thus, each link metric (e.g., cost, link type, tolerable speed, etc.) are ranked, and each of the characteristics corresponding to each of these link metrics (e.g., free, flat rate, high speed, low speed, etc.) are also ranked. Based on both sets of rankings, an appropriate link is selected.

Turning to the applied primary reference, Wang describes a system to enable handoffs between a plurality of links provided to a mobile station. Wang describes at p. 55, col. 2, ll. 29-35 that users may specify the importance or weights of each normalized parameter corresponding to characteristics of a specific link. These weights are then combined in a

simultaneous calculation to determine a “cost function” or similar cumulative parameter corresponding to a specified network in order to determine the best available link.

Wang, however, fails to teach or suggest “defin[ing] a plurality of link metrics, *each link metric being defined by a plurality of characteristics* of each detected link... *rank[ing] each of said plurality of characteristics defining each of said respective link metrics*... and select[ing] a link corresponding to a record having *a characteristic with a highest rank thus assigned, at a link metric with a highest rank*,” as recited in independent Claim 30.

In Wang, a “cost value” is determined for each link, which is a cumulative parameter calculated based on taking into account all of the user’s assigned preferences simultaneously. The cost value for each link is then analyzed and the link with the lowest cost value wins, and is selected as the active link. Thus, Wang describes that each link is analyzed based on a cumulative parameter (cost value) which is calculated by simultaneously taking into account a variety of weighted (one, zero, or otherwise) parameters corresponding to each link.

More specifically, as described at p. 55, col. 2, ll. 17-28 of Wang, each of a plurality of link metrics (e.g., bandwidth, access, cost) are normalized and weighted by a user to come up with an overall “cost” of each link. This “cost” is the parameter used to determine which link will subsequently be selected.

Wang, however, fails to teach or suggest that each of the link metrics (e.g., bandwidth, access, cost) are “*defined by a plurality of characteristics*” or that his device is configured to receive an input to rank each of the link metrics *and* an input to “*rank each of said plurality of characteristics defining each of said respective link metrics*,” as required by independent Claim 30. More particularly, Wang merely describes that each link metric is calculated to create a normalized parameters corresponding to that link metric, and fails to teach or suggest that the characteristics of each link metric are ranked, whatsoever.

Moreover, as Wang fails to teach or suggest ranking the characteristics corresponding to each link metric, it follows that the reference also fails to teach or suggest “select[ing] a link by analyzing each link based on each individual stored metric in order of rank, and select a link corresponding to a record having ***a characteristic with a highest rank thus assigned, at a link metric with a highest rank,***” which is also required by independent Claim 30.

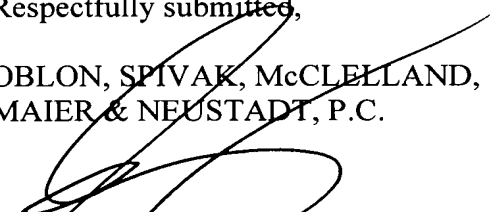
Further, Hsu is relied upon only to reject features which are now omitted from the claims, and fails to remedy the above noted deficiencies of Wang.

Accordingly, Applicants respectfully submit that new independent Claim 30 patentably defines over Wang and Hsu. For substantially similar reasons, it is also submitted that independent Claims 1, 6, 11, 15, 20, 25 and 29 also patentably define over Wang and Hsu, and Applicants respectfully request that the rejection of these claims (and the claims that depend therefrom) under 35 U.S.C. §103 be withdrawn.

Consequently, in view of the present amendment and in light of the foregoing comments, it is respectfully submitted that the invention defined by Claims 1-3, 6-8, 11, 13, 15-17, 20-22, 25, 27, 29 and 30 is patentably distinguishing over the applied references. The present application is therefore believed to be in condition for formal allowance and an early and favorable reconsideration of the application is therefore requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Bradley D. Lytle
Attorney of Record
Registration No. 40,073

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

Andrew T. Harry
Registration No. 56,959

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